FIG.1

FIG.2

FIG.3

RF FREQUENCY GROUP GENERATES DATA FILES —122

DATA FILES INPUT TO MAIN PROGRAM —124

CREATE FILES:
ctmret.i
tpptmret.i
dcchret.i
ceqsuret.i
reselret.i
fciret.i
—126

SEND FILE dcchrad.i TO ECP —128

CREATE APXRCV SCRIPT FILES:
E1dcch.ret
E1ctm.ret/E1tppt.ret
—130

132— CHECK FOR PCS SYSTEM   Y

↓ N

134— CREATE APXRCV SCRIPT FILE
E1ceqsu.ret

136— CREATE APXRCV SCRIPT FILE
E1resel.ret

A

FIG.4A

FIG.4B

138 — CREATE APXRCV SCRIPT FILE
E1fci.ret

140 — EXECUTE ALL SCRIPT FILES
IN CHECK MODE

142 — CHECK FOR ERRORS

144
GENERATE
ERROR REPORT

Y

N

146 — EXECUTE APXRCV SCRIPT FILES:
E1dcch.ret
E1ctm.ret/E1tppt.ret

150
EXECUTE SCRIPT FILES:
E1ceqsu2.ret
E1resel.ret
E1fci.ret

148 — REMOVE/RESTORE RADIOS

162 — GENERATE TEAR DOWN
REPORT IN CORSAIR
PHONEPRINT SYSTEM

164 — PROCESS REPORT AS INPUT
FILE FOR POST-PROCESSING
PROGRAM

166 — GENERATE OUTPUT FILE

168 — PROCESS OUTPUT FILE WITH
MAPPING SOFTWARE

170 — GENERATE GRAPHICAL
REPRESENTATION
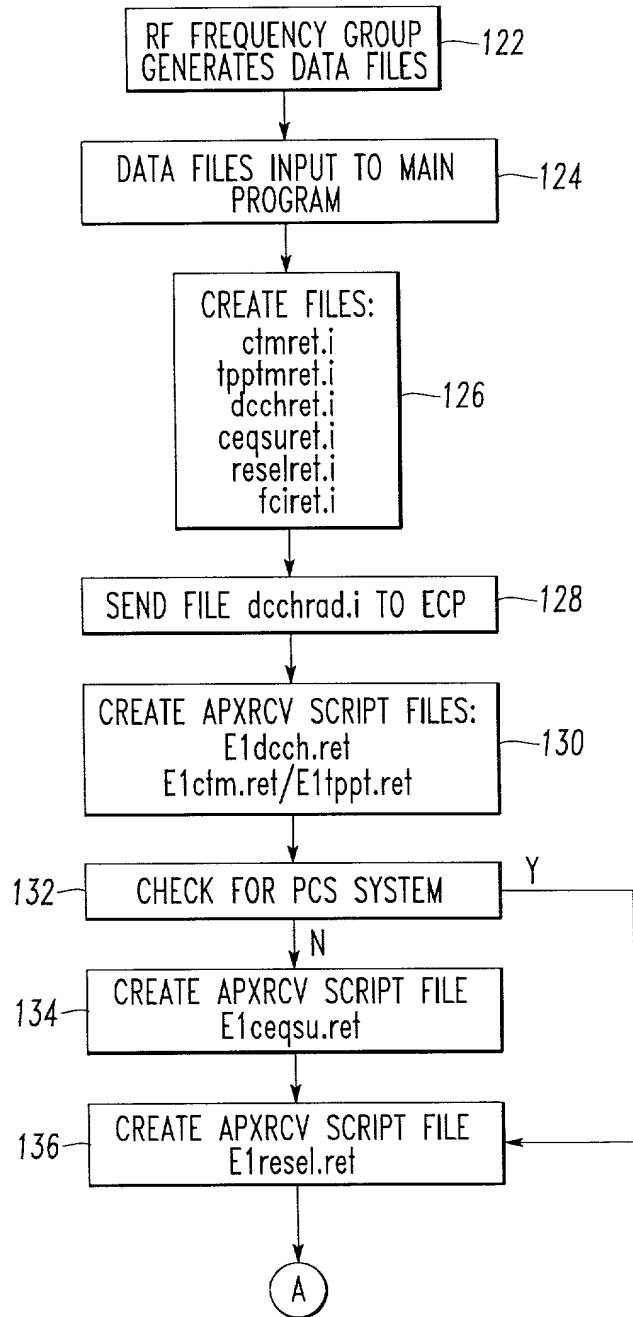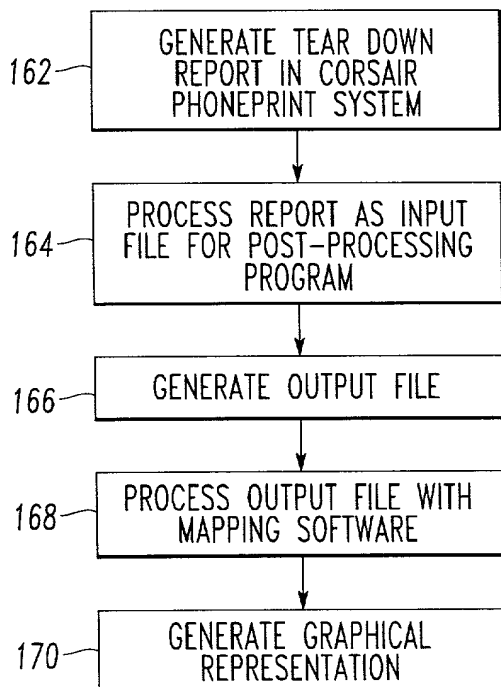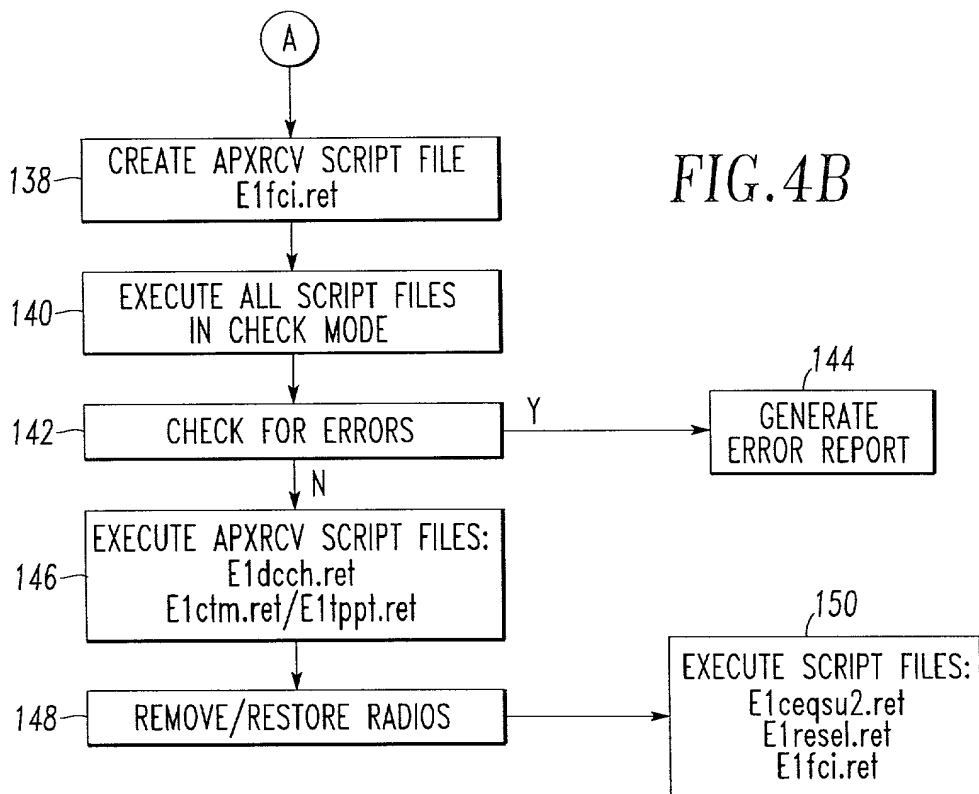
FIG.5

```
>pg pp9912.txt
Date      Time(2) Site_ID MIN(1)  Dialed_Digits  Tear-Down_Reason
12/25/99  19:26:09  20    2012075854   12014981322    MFG
12/23/99  14:56:20  219   2012075854   5617767114     MFG
12/26/99  21:40:32  167   2012130072   19547814445    MFG
12/23/99  19:06:49  82    2012134416   9544289147     MFG
12/23/99  19:06:23  82    2012134416   9544289147     MFG
12/25/99  17:23:55  82    2012134416   9544285083     MFG
12/25/99  15:06:20  82    2012134416   2015680907     MFG
12/25/99  13:04:16  82    2012134416   2015680907     MFG
12/25/99  13:04:05  82    2012134416   2015680907     MFG
12/25/99  13:03:53  82    2012134416   2015680907     MFG
12/25/99  13:03:31  82    2012134416   2015680907     MFG
12/25/99  13:01:49  82    2012134416   2015680907     MFG
12/25/99  12:53:38  82    2012134416   2015680907     MFG
12/25/99  12:52:32  82    2012134416   2015680907     MFG
12/25/99  12:52:03  82    2012134416   2015680907     MFG
12/25/99  12:50:48  82    2012134416   2015680907     MFG
12/25/99  12:48:15  82    2012134416   2015680907     MFG
12/25/99  12:47:16  82    2012134416   5680907 MFG
12/24/99  11:58:50  82    2012134416   8003328463     MFG
12/24/99  11:58:08  82    2012134416   8003328463     MFG
12/24/99  10:03:16  82    2012134416   9544289147     MFG
12/22/99  14:58:09  80    2012300764   19546467166    MFG
12/29/99  10:54:28  177   2012499657   19086881800    MFG
12/29/99  10:51:49  177   2012499657   9412503698     MFG
12/29/99  10:25:04  145   2012499657   12012400657    MFG
12/29/99  10:24:42  145   2012499657   12012400657    MFG
12/27/99  21:26:01  49    2012476225   15616551115    MFG
12/24/99  19:22:48  219   2012476225   15615551212    MFG
12/24/99  19:22:26  219   2012476225   15615551212    MFG
12/24/99  19:22:06  219   2012476225   15615551212    MFG
12/24/99  19:13:38  219   2012476225   5617950022     MFG
12/27/99  12:01:06  20    2012476225   15614996976    MFG
12/23/99  16:23:47  12    2012640686   3105152822     MFG
12/23/99  16:17:19  12    2012640686   3105152822     MFG
12/23/99  16:17:03  12    2012640686   3105152822     MFG
```
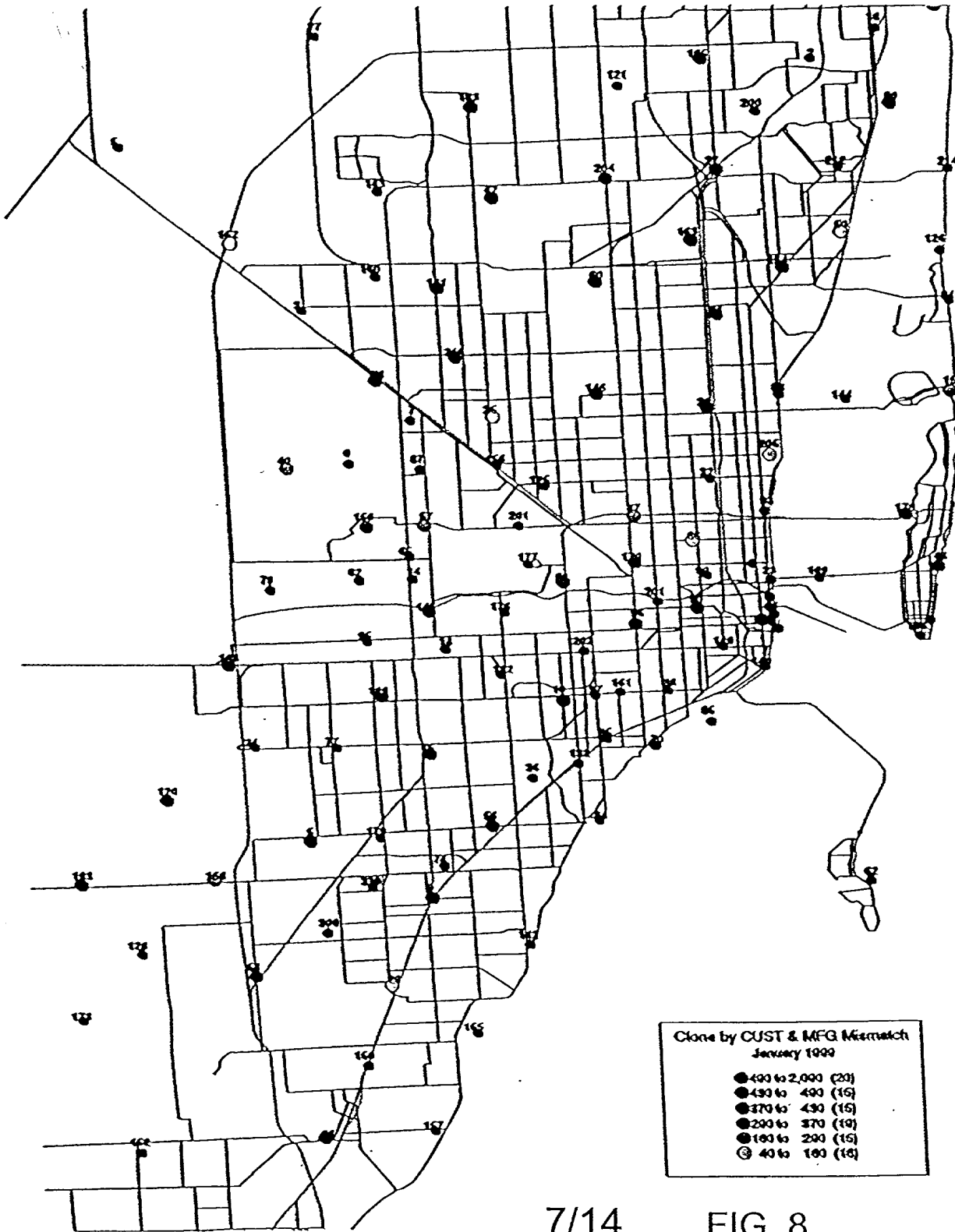
FIG.6

```
>pg map1299
ECP, CellNo,Longitude, Latitude,Count
4,1,-80.1675,26.155278.148
3,5,-80.361111,25.699444,209
1,6,-80.171667,26.36,675
1,7,-80.144167,26.562778,173
1,8,-80.109722,26.760556,76
3,9,-80.317222,25.679444,311
3,10,-80.266667,25.747222,115
4,15,-80.123056,25.854167,510
4,16,-80.198611,26.248889,401
1,18,-80.088889,26.45,380
1,20,-80.058611,26.651944,216
4,22,-80.210833,25.848611,138
4,23,-80.128889,26.085833,844
4,25,-80.288889,25.845556,55
1,26,-80.201111,26.630833,251
4,27,-80.204722,25.93,590
3,38,-80.360833,25.596667,255
3,39,-80.333889,25.649444,584
4,30,-80.415,26.086389,207
4,31,-80.175833,26.121944,128
1,37,-80.681389,26.686667,213
4,40,-80.364444,25.828333,156
4,42,-80.286944,25.920556,147
4,43,-80.168056,26.024722,333
3,46,-80.129167,25.793611,2694
3,47,-80.238611,25.811389,121
1,49,-80.051667,26.711944,381
4,50,-80.160556,25.908611,187
4,52,-80.26,26.121667,456
4,53,-80.105556,26.136389,501
3,54,-80.383333,25.653056,81
4,55,-80.249444,26.268333,314
3,56,-80.294722,25.703889,184
3,57,-80.315,25.808333.21
3,58,-80.265278,25.788333,267
4,60,-80.25,25.891667,205
4,61,-80.090833,26.230278,147
4,64,-80.211667,26.0175,595
```

FIG.7

Clone by CUST & MFG Mismatch
January 1999

● 490 to 2,000 (20)
● 430 to 490 (16)
● 370 to 430 (15)
● 290 to 370 (19)
● 160 to 290 (15)
◉ 40 to 160 (16)

7/14   FIG. 8

PERFORM DRIVE TEST —182

PERFORM RF CALL DRIVE —184

GENERATE DRIVE TEST DATA FILE —186

GENERATE RF CALL TRACE DATA FILE —188

190

COMBINE DATA FILES INTO COMBINED OUTPUT FILE

EXECUTE OUTPUT FILE IN MAPPING SOFTWARE PROGRAM —192
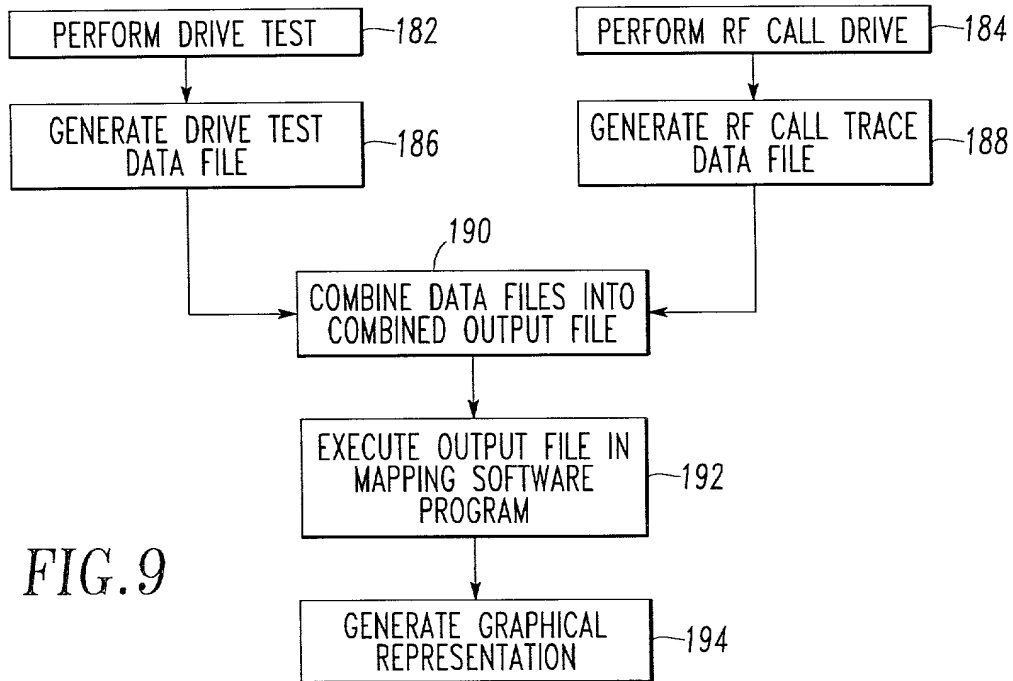
FIG.9

GENERATE GRAPHICAL REPRESENTATION —194

FIG.11B

```
ER,RBER,FER,BQ,TD,FREQ,TIME,MS,PRINT
DEV,FVC,RVC,TDRVC,FVC,RVC,RVC,RVC,RVC,RVC,ERR,ALIG

28.0069725,9412580201,T017C,MDVC-
15,0,1,0,2,0
28.0069725,9412580201,T017C,MDVC-
15,0,1,0,2,0
28.0069856,9412580201,T017C,MDVC-
15,0,2,0,2,1
28.0069856,9412580201,T017C,MDVC-
15,0,2,0,2,1
28.0070392,9412580201,T005B,MDVC-
2,0,4,0,2,1
28.0072014,9412580201,T005B,MDVC-
7,0,4,0,2,1
28.0072014,9412580201,T005B,MDVC-
7,0,4,0,2,1
28.0073900,9412580201,T005B,MDVC-
8,0,3,0,2,1
28.0073900,9412580201,T005B,MDVC-
8,0,3,0,2,1
28.0075761,9412580201,T005B,MDVC-
7,0,5,0,2,1
28.0075761,9412580201,T005B,MDVC-
7,0,5,0,2,1
592,9412580102,T005B
```

MOBILE TELEPHONE CELL TRAFFIC RECORDING
DIGITAL SIGNAL STRENGTH MEASURMENTS

MSNB	CELL	DEV	SSFVC	SSRVC
9412580201	T017C	MDVC-1060	23	20

SSSTDRVC	BERFVC	BERRVC	RBERRVC	FERRVC
6	3	2	2	0

BQRVC	TDRVC	FREQERR	TIMEALIGN	MSPOW
6	3	1	0	2

NCELL	NSSFFMC	MEASCHAN	VIND
T017A	5	1260	Y
T017B	23	1272	Y
T006B	17	1300	Y
T016B	13	1305	Y
T004A	29	1251	Y
T005B	33	1302	Y
T005A	23	1290	Y
T018A	21	1294	Y
T154B	21	1303	Y

TIMW	PRINTIND	FCODE
11:08:27	0	

END

MOBILE TELEPHONE CELL TRAFFIC RECORDING CANDIDATE LIST FOR HANDOFF

MSNB	CELL	TIME	FCODE	URGENCY
9412580201	T017C	11:08:28		0

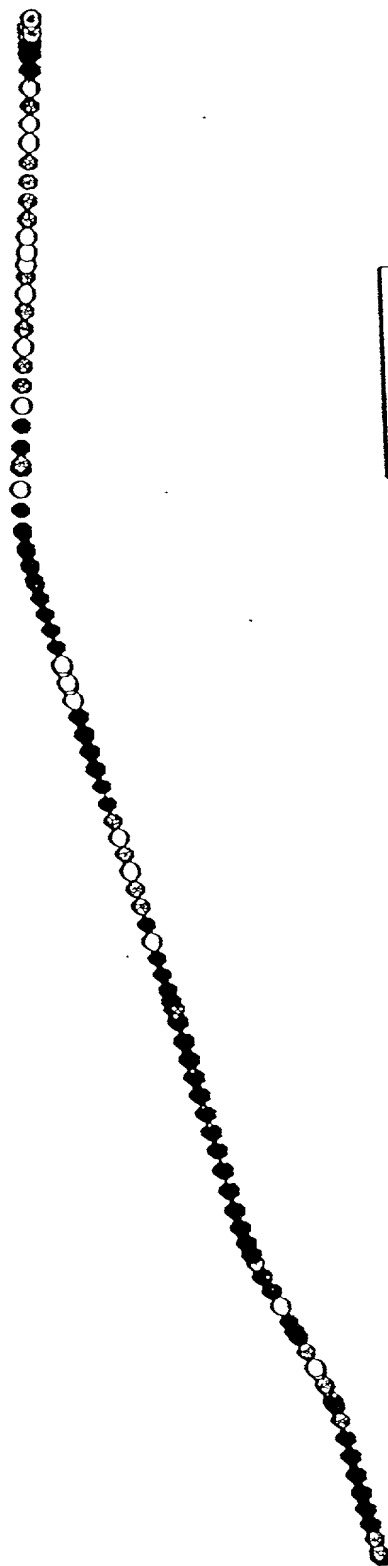| CANDCELL	CELLTYPE	NTYPE	RATING
T005B	0	STD	0

END

FIG.10

XTEL LOG FILE

DATE,TIME,LONGITUDE,LATITUDE,ALT,SPEED,HEADING,DPS_MODE,PHONE_TASK,TASK
_DESC,CHAN,RSSI,MODTYPE,SLOT,CHANTYPE,SAT,DVCC,POWER,BER,BER_CODE,SBI,T
A,CELL1,DISTANCE1,CELL2,DISTANCE2,CELL3,DISTANCE3,LOWER_CTOA,UPPER_CTOA
,COCHA_RSSI,MARKER,CHAN_GRP,EVENT,EVINFO,BAND,LISTTYPE,LISTCT,CHAN1,RSS
I1,CHAN2,RSSI2,CHAN3,RSSI3,CHAN4,RSSI4,CHAN5,RSSI5,CHAN6,RSSI6,CHAN7,RS
SI7,CHAN8,RSSI8,CHAN9,RSSI9,CHAN10,RSSI10,CHAN11,RSSI11,CHAN12,RSSI12,C
HAN13,RSSI13,CHAN14,RSSI14,CHAN15,RSSI15,CHAN16,RSSI16,CHAN17,RSSI17,CH
AN18,RSSI18,CHAN19,RSSI19,CHAN20,RSSI20,CHAN21,RSSI21,CHAN22,RSSI22,CHA
N23,RSSI23,CHAN24,RSSI24,CHAN25,RSSI25,REVISION
7/30/99,11:08:27,-
82.3321883,27.9813839,9,40.3,86.9,G8,5,Conversation,1218,-
93,D,3,V,3,5,2,0.87,3,0,0,,,,,,,14,15,-100,0,8,,,1,Neig,9,1284,-
89,1302,-93,1300,-103,1255,-107,1317,-109,1303,-109,1314,-111,1305,-
111,1315,-
113,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,4
7/30/99,10:52:47,-
82.3321883,27.9813839,9,40.3,86.9,G8,5,Conversation,1218,-
93,D,3,V,3,5,2,0.84,3,0,0,,,,,,,14,15,-100,0,8,,,1,Neig,9,1284-
89,1302,-93,1300,-103,1303,-107,1255,-109,1314,-111,1317,-111,1305,-
111,1315,-
113,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,4
7/30/99,10:52:48,-
82.33219553,27.9813947,10,43.1,,87.0,G8,5,Conversation,1218,-
93,D,3,V,3,5,2,0.84,3,0,0,,,,,,,-10,38,-137,0,8,,,1,Neig,9,1284-
89,1302,-93,1300,-103,1303,-107,1255,-109,1314,-111,1317,-111,1305,-
111,1315,-
113,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,4
7/30/99,10:52:48,-
82.3319553,27.9813947,10,43.1,87.0,G8,5,Conversation,1218,-
95,D,3,V,3,5,2,0.84,3,0,0,,,,,,,-10,38,-137,0,8,,,1,Neig,9,1284-
83,1302,-93,1300,-101,1303,-105,1255,-109,1305,-111,1314,-113,1315,-
113,1317,-
113,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,4
7/30/99,10:52:49,-
82.3317164,27.9814044,10,44.7,87.2,G8,5,Conversation,1218,-
95,D,3,V,3,5,2,0.99,3,0,0,,,,,,,-10,38,-137,0,8,,,1,Neig,9,1284-
83,1302,-93,1300,-101,1303,-105,1255,-109,1305,-111,1314,-113,1315,-
111,1317,-
113,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,4

FIG.11A

FIG.12

Legend: xtol_old by FVC-118
- .75 to .61 (34)
- .79 to .75 (45)
- .83 to .79 (48)
- .85 to .83 (27)
- .96 to .85 (47)

COMARCO FILE

13:20:00.8,26.677,-81.567
12:20:01.2,25.230,-81.456
....
....
13.21.00.3,28.655,-81.2128

FIG.13A

Time,Long,Lat,CellNo,SS,
12:41:29,28,6559300,-18.205792000,1353,-124
12:41:29,28,6559300,-18.205792000,201,-106
12:41:29,28,6559300,-18.205792000,32,-106
12:41:29,28,6559300,-18.205792000,321,-76
12:41:29,28,6559300,-18.205792000,323,-66
12:41:29,28,6559300,-18.205792000,831,-100
12:41:30,28,6559260,-18.205580000,323,-66
12:41:31,28,6559170,-18.205380000,321,-75
12:41:31,28,6559170,-18.205380000,321,-75
12:41:31,28,6559170,-18.205380000,323,-64
12:41:32,28,6559080,-18.205198000,323,-63
12:41:33,28,6558950,-18.204922000,321,-73
12:41:33,28,6558950,-18.204922000,323,-62
12:41:34,28,6558900,-18.204769000,321,-73
12:41:34,28,6558900,-18.204769000,321,-73
12:41:34,28,6558900,-18.204769000,322,-98
12:41:34,28,6558900,-18.204769000,323,-61
12:41:35,28,6558900,-18.204577000,1353,-124
12:41:35,28,6558900,-18.204577000,201,-105
12:41:35,28,6558900,-18.204577000,202,-106
12:41:35,28,6558900,-18.204577000,32,-105
12:41:35,28,6558900,-18.204577000,323,-63
12:41:35,28,6558900,-18.204577000,831,-99
12:41:37,28,6558970,-18.204219000,321,-73
12:41:37,28,6558970,-18.204219000,323,-67
12:41:38,28,6559000,-18.204044000,321,-74
12:41:38,28,6559000,-18.204044000,323,-67
12:41:38,28,6559000,-18.204044000,321,-74
12:41:38,28,6559000,-18.204044000,323,-67
12:41:40,28,6559020,-18.203683000,1353,-122
12:41:40,28,6559020,-18.203683000,202,-104
12:41:40,28,6559020,-18.203683000,32,-105
12:41:40,28,6559020,-18.203683000,321,-73
12:41:40,28,6559020,-18.203683000,322,-96
12:41:40,28,6559020,-18.203683000,323,-67
12:41:41,28,6559070,-18.203457000,321,-72
12:41:41,28,6559070,-18.203457000,323,-66
12:41:42,28,6559100,-18.203125000,321,-71
12:41:42,28,6559100,-18.203125000,323,-66

FIG.13B

```
v— — — — — — — — — — — — Record #        1: — — — — — — — — — — — —v
05/10/99 13:22:05 ALM INF   4103   7 32           G        TC     457
          Call Monitor: Call Record has been Written in RAM disk
          Ph#:(407)9223002 Call clear by MS — mobile clear
v— — — — — — — — — — — — Record #        2: — — — — — — — — — — — —v
05/10/99 13:22:04 ALM INF   4113   7 32           G        TC     457
          Call Monitor: Call RSSI value
          (407)9223002 cell 323 rrssi −77 attn 4 snr 40
v— — — — — — — — — — — — Record #        3: — — — — — — — — — — — —v
05/10/99 13:22:04 ALM INF   4117   7 32           G        SRC
          Call Monitor: Adj. cell RSSI values from Scanning Rcvr.
          (407)9223002 Cell_id RSSI:/323 / −73
v— — — — — — — — — — — — Record #      264: — — — — — — — — — — — —v
05/10/99 13:21:00 ALM INF   4117   7 20           A        SRC
          Call Monitor: Adj. cell RSSI values from Scanning Rcvr.
          (407)9223002 Cell_id RSSI:/201 / −98
v— — — — — — — — — — — — Record #      265: — — — — — — — — — — — —v
05/10/99 13:21:00 ALM INF   4117   7 32           B        SRC
          Call Monitor: Adj. cell RSSI values from Scanning Rcvr.
          (407)9223002 Cell_id RSSI:/322 / −103
v— — — — — — — — — — — — Record #      266: — — — — — — — — — — — —v
05/10/99 13:21:00 ALM INF   4117   7 83           A        SRC
          Call Monitor: Adj. cell RSSI values from Scanning Rcvr.
          (407)9223002 Cell_id RSSI:/861 / −96
v— — — — — — — — — — — — Record #      267: — — — — — — — — — — — —v
05/10/99 13:21:00 ALM INF   4117   7 32           A        SRC
          Call Monitor: Adj. cell RSSI values from Scanning Rcvr.
          (407)9223002 Cell_id RSSI:/321 / −78
v— — — — — — — — — — — — Record #      268: — — — — — — — — — — — —v
05/10/99 13:21:00 ALM INF   4117   7 135          G        SRC
          Call Monitor: Adj. cell RSSI values from Scanning Rcvr.
          (407)9223002 Cell_id RSSI:/1353 / −113
v— — — — — — — — — — — — Record #      269: — — — — — — — — — — — —v
05/10/99 13:21:00 ALM INF   4117   7 20           B        SRC
          Call Monitor: Adj. cell RSSI values from Scanning Rcvr.
          (407)9223002 Cell_id RSSI:/302 / −100
v— — — — — — — — — — — — Record #      270: — — — — — — — — — — — —v
05/10/99 13:21:00 ALM INF   4113   7 32           G        TC     457
          Call Monitor: Call RSSI value
          (407)9223002 cell 323 rrssi −72 attn 4 snr 40
v— — — — — — — — — — — — Record #      271: — — — — — — — — — — — —v
05/10/99 13:21:00 ALM INF   4117   7 32           G        SRC
          Call Monitor: Adj. cell RSSI values from Scanning Rcvr.
          (407)9223002 Cell_id RSSI:/323 / −71
v— — — — — — — — — — — — Record #      272: — — — — — — — — — — — —v
05/10/99 13:21:00 ALM INF   4117   7 3            B        SRC
          Call Monitor: Adj. cell RSSI values from Scanning Rcvr.
          (407)9223002 Cell_id RSSI:/32 / −115
```
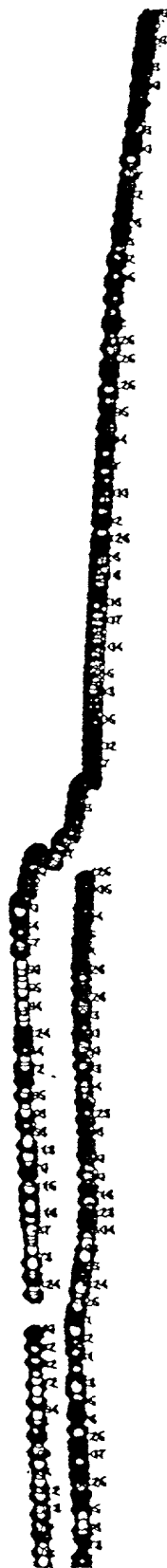
FIG.14

FIG.15

FIGURE 10: MAP VIEW OF OS1

tra0528_out by SS

○ -85 to -66 (400)
● -92 to -85 (534)
● -96 to -92 (465)
● -106 to -96 (640)
● -116 to -106 (482)
● -127 to -116 (565)